

DEPARTMENT OF TRANSPORTATION**DIVISION OF ENGINEERING SERVICES**

Office of Structural Materials

Quality Assurance and Source Inspection



Bay Area Branch

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Contract #: 04-0120F4Cty: SF/ALA Rte: 80 PM: 13.2/13.9File #: 1.28**WELDING INSPECTION REPORT****Resident Engineer:** Casey, William**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-028287**Date Inspected:** 29-Aug-2012**Project Name:** SAS Superstructure**OSM Arrival Time:** 700**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1930**Contractor:** American Bridge/Fluor Enterprises, a JV**Location:** Job Site**CWI Name:** Barry Drake**CWI Present:** Yes No**Inspected CWI report:** Yes No N/A**Rod Oven in Use:** Yes No N/A**Electrode to specification:** Yes No N/A**Weld Procedures Followed:** Yes No N/A**Qualified Welders:** Yes No N/A**Verified Joint Fit-up:** Yes No N/A**Approved Drawings:** Yes No N/A**Approved WPS:** Yes No N/A**Delayed / Cancelled:** Yes No N/A**Bridge No:** 34-0006**Component:** SAS OBG**Summary of Items Observed:**

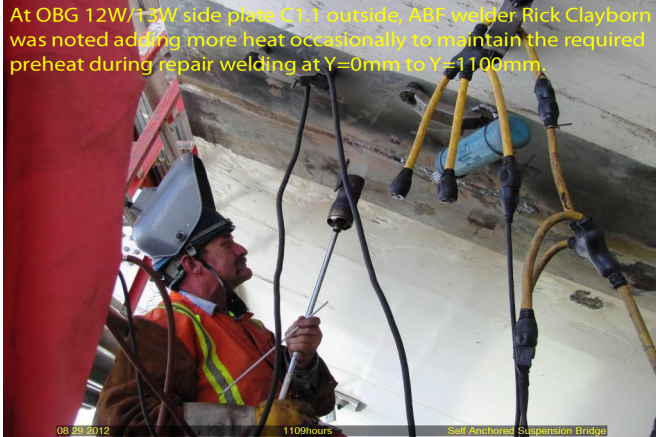
Caltrans Office of Structural Material (OSM) Quality Assurance Inspector (QAI) Joselito Lizardo was present at the Self Anchored Suspension (SAS) job site as requested to perform observations on the welding of components for the San Francisco Oakland Bay Bridge (SFOBB) Project.

At OBG 12W/13W side plate C1.1 outside, QA randomly observed ABF/JV qualified welder Rick Clayborn continuing to perform CJP groove welding repair on a Seismic Performance Critical Member (SPCM) welded splice butt joint. The welder was observed manually welding in 4G (overhead) position utilizing Shielded Metal Arc Welding (SMAW) with 3.2mm and 4.0mm diameter E7018H4R electrode implementing Caltrans approved welding procedure ABF-WPS-D15-1004 Repair. The repair excavation was located at Y=0mm to Y=1100mm and was having excavation profile of 1100mm long x 40mm wide x 11mm deep. This repair is a continuation of repair from Y=1100mm to Y=2400mm that has been previously and wholly excavated then welded. It is being repaired through Caltrans approved Request for Weld Repair (RWR) #201208-093. ABF personnel informed this QA that they intend to excavate and weld the whole length of the weld (2400mm long) from the outside then go inside and excavate and weld again. The second time repair excavation was preheated to more than 325 degree Fahrenheit using two (2) propylene gas torches in tandem prior welding and occasionally adding more heat using the same torch during welding. During the shift, ABF QC Barry Drake was noted monitoring the welder with measured working current of 128 amperes on the 3.2mm E7018H4R electrode and 165 amperes when the welder switched on to a 4.0mm E7018H4R electrode. After the welding completion, the welder performed the Post Weld Heat Treatment (PWHT) of 450°F using the same two (2) propylene gas torch in tandem that were moved side to side during the course of the PWHT. There was one ABF personnel who was designated attending the torches during the duration of the PWHT and held it for one (1) hour after welding as required.

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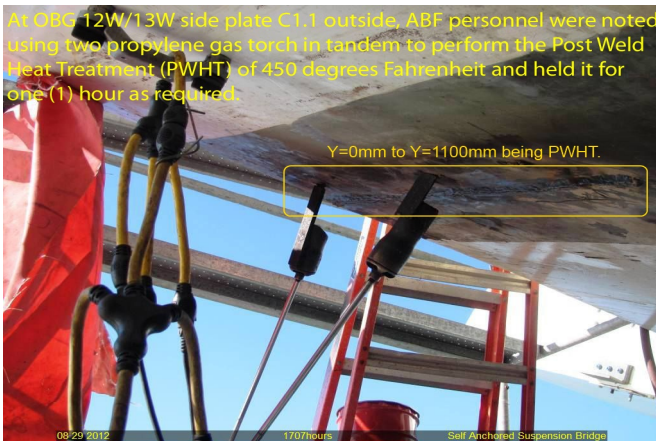
At OBG 12W/13W side plate C1.1 outside, ABF welder Rick Clayborn was noted adding more heat occasionally to maintain the required preheat during repair welding at Y=0mm to Y=1100mm.



At OBG 12W/13W side plate C1.1 outside, ABF personnel were noted preheating and maintaining the preheat of 325 degrees Fahrenheit using two propylene gas torch in tandem during welding of repair at Y=0mm to Y=1100mm.



At OBG 12W/13W side plate C1.1 outside, ABF personnel were noted using two propylene gas torch in tandem to perform the Post Weld Heat Treatment (PWHT) of 450 degrees Fahrenheit and held it for one (1) hour as required.



At OBG 12W/13W side plate C1.1 outside, ABF welder Rick Clayborn was observed performing 4G (overhead) position Shielded Metal Arc Welding (SMAW) welding repair on welded splice butt joint. ABF QC Barry Drake was also noted monitoring the welder during shift.



Summary of Conversations:

No significant conversation occurred today.

Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact SMR Nina Choy 510-385-5910, who represents the Office of Structural Materials for your project.

Inspected By: Lizardo, Joselito

Quality Assurance Inspector

Reviewed By: Levell, Bill

QA Reviewer